

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. **(currently amended):** A naturally-occurring polypeptide isolated from a microorganism of the genus *Aspergillus*,
wherein said polypeptide has an activity to act upon a disaccharide glycoside to thereby release saccharides from said disaccharide glycoside in a disaccharide unit,
wherein said disaccharide glycoside has a glucose moiety at the aglycon side,
wherein said polypeptide has enzymatic activity at pH 2.5 to 3,
wherein said polypeptide is stable at 50°C or less,
wherein said polypeptide has an ~~approximate~~ molecular weight of ~~about~~ 47 kDa as determined by SDS-PAGE, and
wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight), ~~and~~
~~wherein said microorganism is selected from the group consisting of the genus *Aspergillus*, the genus *Penicillium*, the genus *Rhizomucor*, and the genus *Corynebacterium*.~~

2. **(previously presented):** The polypeptide according to claim 1, wherein said disaccharide glycoside is selected from the group consisting of β -primeveroside, a rutinose glycoside, a gentiobiose glycoside, an arabinofuranosyl glycoside and an apiofuranosyl glycoside.

3. **(canceled).**

4. **(previously presented):** A polypeptide isolated from a microorganism which comprises a polypeptide having the amino acid sequence of SEQ ID NO: 8 shown in the Sequence Listing.

5-10. **(canceled).**

11. **(currently amended):** A method for ~~producing~~obtaining a naturally-occurring isolated polypeptide having an activity to act upon a disaccharide glycoside to release saccharides from said disaccharide glycoside in a disaccharide unit, wherein said disaccharide glycoside has a glucose moiety at the aglycon side,

said method comprising (1) culturing a microorganism of the genus *Aspergillus* in a nutrient medium to effect production of the polypeptide, wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6, at 30°C, and wherein said nutrient medium

contains a saccharide inducer, and (2) collecting said polypeptide from the resulting culture mixture to obtain the naturally occurring isolated polypeptide,

wherein said polypeptide has enzymatic activity at pH 2.5 to 3, wherein said polypeptide is stable at 50°C or less, wherein said polypeptide has ~~an approximate~~ a molecular weight of ~~about~~ 47 kDa as determined by SDS-PAGE, and

wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight), ~~and~~

~~wherein said microorganism is selected from the group consisting of the genus *Aspergillus*, the genus *Penicillium*, the genus *Rhizomucor*, and the genus *Corynebacterium*.~~

12. (canceled).

13. (previously presented): The method for producing a polypeptide having an activity to act upon a disaccharide glycoside to release saccharides from said disaccharide glycoside in a disaccharide unit according to claim 11, wherein the polypeptide is inducible by addition of a saccharide to the nutrient medium.

14. (previously presented): The method for producing a polypeptide according to claim 13, wherein the saccharide is selected from the group consisting of gentose, gentiobiose, and gentio-oligosaccharide.

15-21. (canceled).

22. (original): An isolated polypeptide represented by amino acids 1-466 of SEQ ID NO:8.

23. (canceled).

24. (currently amended): A naturally occurring polypeptide isolated from a microorganism selected from the group consisting of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus*, and *Aspergillus fumigatus*,

wherein said polypeptide has an activity to act upon a disaccharide glycoside to thereby release saccharides from said disaccharide glycoside in a disaccharide unit,

wherein said disaccharide glycoside has a glucose moiety at the aglycon side,

wherein said polypeptide has enzymatic activity at pH 2.5 to 3,

wherein said polypeptide is stable at 50°C or less,

wherein said polypeptide has an approximate molecular weight of about 47 kDa as determined by SDS-PAGE,

wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight), and

~~wherein said microorganism is selected from the group consisting of the species~~
~~*Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus*, *Penicillium rugulosum*, *Penicillium*~~
~~*lilacinum*, *Penicillium decumbence*, *Penicillium multicolor*, *Rhizopus oryzae*, *Rhizomucor*~~
~~*pusillus*, *Rhizomucor miehei*, *Talaromyces emersonii*, *Mortierella vinacea*, *Cryptococcus*~~
~~*albidus*, *Microbacterium arborescens*, *Corynebacterium ammoniagenes*, *Corynebacterium*~~
~~*glutamicum*, and *Actinoplanes missouriensis*.~~

25. (canceled).

26. (currently amended): A method for ~~producing~~ obtaining a naturally occurring
isolated polypeptide having an activity to act upon a disaccharide glycoside to release
saccharides from said disaccharide glycoside in a disaccharide unit, wherein said disaccharide
glycoside has a glucose moiety at the aglycon side,

said method comprising (1) culturing a microorganism selected from the group consisting
of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus*, and *Aspergillus*
fumigatus in a nutrient medium to effect production of the polypeptide,

wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6,
at 30°C, and wherein said nutrient medium contains a saccharide inducer, and (2) collecting said
polypeptide from the resulting culture mixture to obtain the naturally occurring isolated
polypeptide,

wherein said polypeptide has enzymatic activity at pH 2.5 to 3, wherein said polypeptide is stable at 50°C or less, wherein said polypeptide has an ~~approximate~~ molecular weight of about 47 kDa as determined by SDS-PAGE, and

wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight), ~~and~~

~~wherein said microorganism is selected from the group consisting of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus*, *Penicillium rugulosum*, *Penicillium lilacinum*, *Penicillium decumbence*, *Penicillium multicolor*, *Rhizopus oryzae*, *Rhizomucor pusillus*, *Rhizomucor miehei*, *Talaromyces emersonii*, *Mortierella vinacea*, *Cryptococcus albidus*, *Microbacterium arborescens*, *Corynebacterium ammoniagenes*, *Corynebacterium glutamicum*, and *Actinoplanes missouriensis*.~~

27. (new): A naturally-occurring polypeptide isolated from a microorganism of the genus *Aspergillus*, obtained by (1) culturing a microorganism of the genus *Aspergillus* in a nutrient medium to effect production of the polypeptide, wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6, at 30°C, and wherein said nutrient medium contains a saccharide inducer, and (2) collecting said polypeptide from the resulting culture mixture to obtain the naturally occurring isolated polypeptide,

wherein said polypeptide has an activity to act upon a disaccharide glycoside to thereby release saccharides from said disaccharide glycoside in a disaccharide unit,

wherein said disaccharide glycoside has a glucose moiety at the aglycon side,
wherein said polypeptide has enzymatic activity at pH 2.5 to 3,
wherein said polypeptide is stable at 50°C or less,
wherein said polypeptide has a molecular weight of 47 kDa as determined by SDS-PAGE, and
wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight).

28. (new): A naturally-occurring polypeptide isolated from a microorganism selected from the group consisting of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus* and *Aspergillus fumigatus*, obtained by (1) culturing a microorganism selected from the group consisting of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus* and *Aspergillus fumigatus* in a nutrient medium to effect production of the polypeptide, wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6, at 30°C, and wherein said nutrient medium contains a saccharide inducer, and (2) collecting said polypeptide from the resulting culture mixture to obtain the naturally occurring isolated polypeptide,
wherein said polypeptide has an activity to act upon a disaccharide glycoside to thereby release saccharides from said disaccharide glycoside in a disaccharide unit,
wherein said disaccharide glycoside has a glucose moiety at the aglycon side,
wherein said polypeptide has enzymatic activity at pH 2.5 to 3,
wherein said polypeptide is stable at 50°C or less,

wherein said polypeptide has a molecular weight of 47 kDa as determined by SDS-PAGE, and

wherein said polypeptide is encoded by a nucleic acid sequence that hybridizes to the complement of SEQ ID NO: 7 under highly stringent conditions (5X SSC, 1% blocking agent, 0.1% N-lauroylsarcosine sodium, 0.02% SDS, and 68°C, overnight).

29. (new): The polypeptide of claim 1, obtained by

(1) culturing a microorganism of the genus *Aspergillus* in a nutrient medium to effect production of the polypeptide, wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6, at 30°C, and wherein said nutrient medium contains a saccharide inducer, and

(2) collecting said polypeptide from the resulting culture mixture to obtain the naturally occurring isolated polypeptide.

30. (new): The polypeptide of claim 24, obtained by

(1) culturing a microorganism selected from the group consisting of the species *Aspergillus oryzae*, *Aspergillus niger*, *Aspergillus aculeatus* and *Aspergillus fumigatus* in a nutrient medium to effect production of the polypeptide, wherein said culturing is performed under aerobic conditions with a pH in a range of 5-6, at 30°C, and wherein said nutrient medium contains a saccharide inducer, and

(2) collecting said polypeptide from the resulting culture mixture to obtain the naturally occurring isolated polypeptide.